

NHDOT SPR2 PROGRAM

RESEARCH PROGRESS REPORT

INSTRUCTIONS:

Project Managers and/or research project investigators should complete a progress report at least every three months during the project duration. Reports are due the 5th of the month following the end of the quarter. Please provide a project update even if no work was done during this reporting period.

Project # 26962J	Report Period Year: <input type="checkbox"/> Q1 (Jan-Mar) <input type="checkbox"/> Q2 (Apr-Jun) <input type="checkbox"/> Q3 (Jul-Sep) <input checked="" type="checkbox"/> Q4 (Oct-Dec)	
Project Title: UAS and Transportation Projects		
Project Investigator: Jarlath O'Neil-Dunne Phone: 802-656-3324 E-mail: joneildu@uvm.edu		
Research Start Date: December 1, 2016	Research End Date: September 30, 2019	Project schedule status: <input type="checkbox"/> On schedule <input type="checkbox"/> Ahead of schedule <input checked="" type="checkbox"/> Behind schedule

Brief Project Description:

The overall objective of this project is to evaluate UAS technology for a broad range of case studies relating to the specific needs of the New Hampshire Department of Transportation (NH DOT). Specifically, this project seeks to:

1. Determine the types of transportation projects for which UAS are best suited for.
2. Evaluate the capabilities and limitations, along with the costs and benefits, of using UAS technology for a variety of transportation projects.
3. Outline the policies, procedures, staffing, and information technology infrastructure required for NH DOT to fully implement UAS technology.
4. Develop NH DOT's UAS capabilities.

Progress this Quarter (include meetings, installations, equipment purchases, significant progress, etc.):

- Project was officially approved.
- A new UAS platform was procured, the senseFly eBee+
- Three new UAS sensors were procured, the Parrott Sequoia multispectral camera, the G9X camera, and the senseFly SODA camera.
- Developed UAS mission profiles for airport operations.

Items needed from NHDOT (i.e., Concurrence, Sub-contract, Assignments, Samples, Testing, etc.):

- Identify individuals for the stakeholder advisory committee.
- Assist in identifying locations for UAS case studies.

Anticipated research next 3 months:

- UAS presentation at the NH DOT Winter Technical Meeting.
- Establish a stakeholder advisory committee (Task 1).
- UAS mission planning profiles (Task 3).
- Carry out 1-2 UAS operations (Task 4).
- Generate UAS products (Task 5).
- Provide UAS products to NH DOT (Task 6).

Circumstances affecting project: Describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope, and budget, along with recommended solutions to those problems.

The original project work plan assumed an October 1, 2016 start date. Project was not officially approved until December 21, 2016. The approval date, combined with the holiday season, resulted in limited progress this reporting period. We anticipate being able to catch up on tasks that were postponed due to

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Tasks (from Work Plan)	Planned % Complete	Actual % Complete
Task 1: Establish a stakeholder advisory committee	100%	0%
Task 2: UAS Case Studies	100%	5%
Task 3: UAS Mission Planning Profiles	25%	5%
Task 4: UAS Operations	0%	0%
Task 5: UAS Products	0%	0%
Task 6: Provide UAS Products to NH DOT	0%	0%
Task 7: Implementation Assessment	0%	0%
Task 8: Reporting	0%	0%